



Emerging threats to human health from global environmental change

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Abstract:

Large-scale anthropogenic changes to the natural environment, including land-use change, climate change, and the deterioration of ecosystem services, are all accelerating. These changes are interacting to generate five major emerging public health threats that endanger the health and well-being of hundreds of millions of people. These threats include increasing exposure to infectious disease, water scarcity, food scarcity, natural disasters, and population displacement. Taken together, they may represent the greatest public health challenge humanity has faced. There is an urgent need to improve our understanding of the dynamics of each of these threats: the complex interplay of factors that generate them, the characteristics of populations that make them particularly vulnerable, and the identification of which populations are at greatest risk from each of these threats. Such improved understanding would be the basis for stepped-up efforts at modeling and mapping global vulnerability to each of these threats. It would also help natural resource managers and policy makers to estimate the health impacts associated with their decisions and would allow aid organizations to target their resources more effectively.

Source: <http://dx.doi.org/10.1146/annurev.environ.033108.102650>
<http://www.annualreviews.org/doi/abs/10.1146/annurev.environ.033108.102650>

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Policymaker, Researcher

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Security,

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Food/Water Security, Human Conflict/Displacement, Human Conflict/Displacement, Precipitation, Sea Level Rise, Temperature

Air Pollution: Allergens, Ozone, Other Air Pollution

Air Pollution (other): Atmospheric brown clouds; NOx

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones, Landslides, Wildfires

Food/Water Quality: Biotoxin/Algal Bloom, Other Water Quality Issue

Water Quality (other): Water temperature; Eutrophication; Saltwater intrusion

Food/Water Security: Food Access/Distribution, Livestock Productivity, Nutritional Quality

Temperature: Extreme Heat, Fluctuations

Geographic Feature: 

resource focuses on specific type of geography

Ocean/Coastal, Urban

Geographic Location: 

resource focuses on specific location

Global or Unspecified

Health Impact: 

specification of health effect or disease related to climate change exposure

Infectious Disease, Injury, Mental Health/Stress, Morbidity/Mortality

Infectious Disease: Foodborne/Waterborne Disease, General Infectious Disease, Vectorborne Disease, Zoonotic Disease

Foodborne/Waterborne Disease: Campylobacteriosis, Cholera, Cryptosporidiosis, E. coli, Giardiasis, Leptospirosis, Salmonellosis, Schistosomiasis

Vectorborne Disease: Flea-borne Disease, Fly-borne Disease, Mosquito-borne Disease, Tick-borne Disease

Flea-borne Disease: Plague

Fly-borne Disease: Trypanosomiasis, Other Fly-borne Disease

Fly-borne Disease (other): Filariasis

Mosquito-borne Disease: Dengue, Malaria, Viral Encephalitis, West Nile Virus

Tick-borne Disease: Lyme Disease

Zoonotic Disease: General Zoonotic Disease, Hantavirus Pulmonary Syndrome, Other Zoonotic Disease

Zoonotic Disease (other): Bartonellosis

Mental Health Effect/Stress: Stress Disorder

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Medical Community Engagement:

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified